

## Claims

[c1] 1. A system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest, comprising:  
a selector for identifying at least one substance of interest;  
a profiler for selecting from multiple profiles related to the safety of the at least one substance of interest, using at least one filter;  
at least one data mining engine; and  
an output device for displaying the analytic results from the data mining engine.

[c2] 2. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the at least one data mining engine is a proportional analysis engine to assess deviations in a set of reactions to the at least one substance of interest.

[c3] 3. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the data mining engine is a comparator to measure the reactions to the at least one substance of interest against a user-defined backdrop.

[c4] 4. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the data mining engine is a correlator to look for correlated signal characteristics in drug/reaction/demographic information.

[c5] 5. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the data mining engine is at least two members of the group consisting of a proportional analysis engine, a comparator, and a correlator.

[c6] 6. The system for assessing and analyzing the risks of adverse effects

resulting from the use of at least one substance of interest according to Claim 1, wherein the substance of interest is assessed in combination with other drugs, foodstuffs, beverages, nutrients, vitamins, toxins, chemicals, hormones, and supplements.

[c7] 7. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 1, wherein the system permits assessment and analysis of the risks of adverse effects resulting from the use of at least one substance of interest in any of multiple dimensions of the risk assessment and analysis.

[c8] 8. A system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest, comprising:  
a selector for identifying at least one drug of interest;  
a profiler for selecting from multiple profiles related to the safety of the at least one drug of interest, using at least one filter;  
at least one data mining engine; and  
an output device for displaying the analytic results from the data mining engine.

[c9] 9. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the at least one data mining engine is a proportional analysis engine to assess deviations in a set of the reactions to the drug of interest.

[c10] 10. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the data mining engine is a comparator to measure the reactions to the drug of interest against a user-defined backdrop.

[c11] 11. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the data mining engine is a correlator to look for correlated signal characteristics in drug/reaction/demographic information.

[c12] 12. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the data mining engine is at least two members of the group consisting of a proportional analysis engine, a comparator, and a correlator.

[c13] 13. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the drug of interest is assessed in combination with other drugs, foodstuffs, beverages, nutrients, vitamins, toxins, chemicals, hormones, and supplements.

[c14] 14. The system for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 8, wherein the system permits assessment and analysis of the risks of adverse effects resulting from the use of at least one drug of interest in any of multiple dimensions of the risk assessment and analysis.

[c15] 15. A method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest, comprising: identifying the at least one substance of interest; selecting the profile of the at least one substance of interest related to the safety of the at least one substance of interest, using at least one filter; analyzing the risks of adverse effects resulting from the use of the at least one substance of interest using at least one data mining engine; and displaying the results of the analysis of risks of adverse effects resulting from the use of the at least one substance of interest.

[c16] 16. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 15, wherein the at least one data mining engine is a proportional analysis engine to assess deviations in a set of the reactions to the at least one substance of interest.

[c17] 17. The method for assessing and analyzing the risks of adverse effects

resulting from the use of at least one substance of interest according to Claim 15 , wherein the at least one data mining engine is a comparator to measure the reactions to the at least one substance of interest against a user-defined backdrop.

[c18] 18. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 15 , wherein the at least one data mining engine is a correlator to look for correlated signal characteristics in drug/reaction/demographic information.

[c19] 19. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 15 , wherein the data mining engine is at least two members of the group consisting of a proportional analysis engine, a comparator, and a correlator.

[c20] 20. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 18 , wherein the at least one substance of interest is assessed in combination with other drugs, foodstuffs, beverages, nutrients, vitamins, toxins, chemicals, hormones, and supplements.

[c21] 21. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one substance of interest according to Claim 18 , wherein the method permits assessment and analysis of the risks of adverse effects resulting from the use of at least one drug of interest in any of multiple dimensions of the risk assessment and analysis.

[c22] 22. A method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest, comprising: identifying the at least one drug of interest, as well any other drugs, nutrients, supplements, and other substances; selecting the profile of the at least one drug of interest related to the safety

of the at least one drug of interest, using at least one filter; analyzing the risks of adverse effects resulting from the use of the at least one drug of interest using at least one data mining engine; and displaying the results of the analysis of risks of adverse effects resulting from the use of the at least one drug of interest.

[c23] 23. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22 , wherein the at least one data mining engine is a proportional analysis engine to assess deviations in a set of the reactions to the at least one drug of interest.

[c24] 24. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22 , wherein the at least one data mining engine is a comparator to measure the reactions to the at least one drug of interest against a user-defined backdrop.

[c25] 25. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22 , wherein the at least one data mining engine is a correlator to look for correlated signal characteristics in drug/reaction/demographic information.

[c26] 26. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22 , wherein the data mining engine is at least two members of the group consisting of a proportional analysis engine, a comparator, and a correlator.

[c27] 27. The method for assessing and analyzing the risks of adverse effects resulting from the use of at least one drug of interest according to Claim 22 , wherein the at least one drug of interest is assessed in combination with other drugs, foodstuffs, beverages, nutrients, vitamins, toxins, chemicals, hormones, and supplements.

[c28] 28. The method for assessing and analyzing the risks of adverse effects

resulting from the use of at least one drug of interest according to Claim 22, wherein the method permits assessment and analysis of the risks of adverse effects resulting from the use of at least one drug of interest in any of multiple dimensions of the risk assessment and analysis.